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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/565,703

08/16/2006

Hans-Joachim Polland

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Bausch & Lomb Incorporated
One Bausch & Lomb Place
Rochester, NY 14604-2701

EXAMINER

DINH, JACK

ART UNIT

PAPER NUMBER

2873

MAIL DATE

DELIVERY MODE

08/17/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,703	Applicant(s) POLLAND ET AL.	
	Examiner JACK DINH	Art Unit 2873	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) 1-14 and 37 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15, 16, 24-33 and 36 is/are rejected.
- 7) ☒ Claim(s) 17-23, 34 and 35 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>20060426</u> . | 6) <input checked="" type="checkbox"/> Other: <u>DETAILED ACTION</u> . |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I, claims 15-36, in the reply filed on 06/02/09 is acknowledged.

Claim Objections

2. Claims 24-33 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from other multiple dependent claims. See MPEP § 608.01(n). Accordingly, the claims have not been further treated on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 15, 16 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Baik et al. (Proceedings of SPIE, vol. 4926, 2002, pp. 251-260) in view of Prieto P M et al (Journal of the Optical Society of America-A, vol. 17, no. 8, August 2000 (2000-08), pp. 1388-1398).

Art Unit: 2873

Regarding claim 15, Baik (section 2, paragraph 2-4) discloses an algorithm for centroid detection in an image, comprising a) acquiring an $X \times Y$ size image represented by a variable pixel signal intensity; b) compressing the $X \times Y$ size image to an $X/n \times Y/m$ size image, where n , m equal any integers and X/n , Y/m are integer values; c) determining a background intensity for any position in the compressed image and subtracting this background from the compressed image; d) detecting a plurality of approximately positioned centroids in the background-subtracted compressed image; f) converting the approximate position of the desired plurality of centroids into more exact positions in the $X \times Y$ size image, whereby every centroid position in the image has been identified. Baik does not disclose step e) of iterating step (d) until approximate positions of a desired plurality of centroids are detected. However, it is obvious that the equation (2) may be used in both the rough center position and the precise center position calculations. Within the same field of endeavor, Prieto (section 3.c, paragraph 3) discloses such details of the center calculation. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to iterate step (d) for the purpose of detecting the approximate positions of the desired plurality of centroids.

Regarding claim 16, Baik in view of Prieto does not disclose step g) of iterating step (f) until a desired level of more exact positions is determined. However, such modification would be within the knowledge of one skilled in the art. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to iterate step (f) for the purpose of determining a desired level of more exact positions.

Art Unit: 2873

Regarding claim 36, Baik (section 2, paragraph 2-4) in view of Prieto (section 3.c, paragraph 3) discloses a device readable medium having stored thereon an executable instruction in the form of the algorithm of claim 15.

Allowable Subject Matter

4. Claims 17-23, 34 and 35 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter. Regarding claim 17, the prior art fails to disclose the step of assigning a quality factor to each centroid in relation to a magnitude of positional change for each centroid in each iteration of step (g). Regarding claim 18, the prior art fails to disclose the step of sorting the centroids determined from step (f) according to a predetermined configuration.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JACK DINH whose telephone number is (571)272-2327. The examiner can normally be reached on M-F (9:30 AM - 6:00 PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L. Mack can be reached on 571-272-2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2873

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jack Dinh/
Examiner, Art Unit 2873
08/12/09